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The equipment is for specialist or qualified technician use only.

Disclaimer

- All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication.
- Launch reserves all the right to make changes at any time without notice.

Safety Precautions

Read all service procedures and precautions, installation instructions and equipment operating manuals thoroughly. Failure to observe these precautions, or the improper use of equipment, could result in property damage, serious injury or death. Never allow improperly trained personnel to perform these procedures or operate equipment.

- Read and understand the User's Manual before attempting to operate the CAT-303.
- The operator should be quite familiar with the shift of automatic transmission to avoid transmission damage caused by mis-operation.
- Vehicle exhaust includes various poisonous and harmful gases (such as carbon monoxide, hydrocarbon, nitrogen oxygen complex, etc.). Keep the unit in a well ventilated work area when changing fluid.
- Avoid touching hot surfaces such as exhaust manifolds, radiator, etc.
- When disconnecting hoses and connectors, wrap them with towel to prevent spurting.
- Turn off the air pressure adjusting valve and turn on the fluid return valve when the unit is not being in use.
- Always make the drive wheels hanging when changing the ATF.
- Do not expose the unit in the direct sun or rain.
- Place the unit vertically.
- When changing the auto ATF, the operation should be performed by trained personnel. The quality of the selected ATF must conform to the direction as specified in the manual of the auto to be operated. Otherwise, LAUNCH shall not be liable for any direct or consequential damages.

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Foreword

The automatic transmission is a transmission part of the vehicle. Besides lubricating and reducing temperature, the automatic transmission fluid (ATF) transfers the power through flow itself. The working temperature of ATF is normally about 140℃, so it requires the high quality for the ATF. ATF must be kept clean, otherwise it is easy to generate the following results: Firstly, the anti-attrition effect of fluid reduces and greatly affects the life of each component; secondly, the oil sludge and deposit carbon inside the ATF increase the wear and tear of the discs and each component, affect the power transmission of the fluid and reduce the power transmission efficiency; thirdly, the oil sludge and deposit carbon inside the ATF make the fluid flows difficultly, so the speed is missing or increased slowly by the automatic transmission, and the badly result is the "burn discs" caused by a certain gear without fluid pressure.

The traditional maintenance way for automatic transmission is: unscrew the screws on the oil tray of automatic transmission, and then release and change the fluid. But using this way, 30% of the fluid is changed at most and 70% of the fluid remains in transmission, the filled new fluid will be quickly polluted. Many automatic transmissions are disassembled to repair because the fluid is not changed in time after the vehicles traveled about 200,000 kilometers, which costs time and much money. However, is there a better way to solve the problem of maintenance of automatic transmission? The automatic transmission fluid changer can not only change the fluid thoroughly, but completely clear the oil sludge and deposit carbon by utilizing the featured flow speed and pressure of the unit. If maintaining automatic transmission after 40,000 kilometers, the best working state of automatic transmission will be kept for a long period of time.

Introduction

1. Usage

The machine is mainly used for the change and filling of automatic transmission fluid.

2. Functions

1) Filling of automatic transmission fluid.
2) New/used fluid exchange of automatic transmission fluid.

3. Features

- Compact design, easy to move and operate.
- Resume the working performance of transmission.
- Prolong the working life of transmission.
- Various special adapters are applicable to vehicle types made in Europe, America and Asia.
- Effectively solves the problem of incomplete exchange of ATF.

Working Conditions

- Ambient temperature: -10~+40°C
- Relative humidity: ＜85%

Specifications

- Power source: Compressed air
- Working pressure: ：≤90psi
- Pressure gauge: 0~150psi
- Fluid outlet hose: 3m
- Fluid return hose: 3m
- Fluid filter: Filters out 5μm corpuscles.
- Fluid tank: 15L
- Dimension: 487mm× 434mm×874mm
- Net weight: 32Kg
- Gross weight: 36Kg

Structure

1.Outline

As shown in Fig.01, the CAT-303 is designed with a fine cabinet, which makes it easy to move. Fluid hoses are equipped with proper connectors for fast connection. The intelligible control panel helps you operate the machine easily.

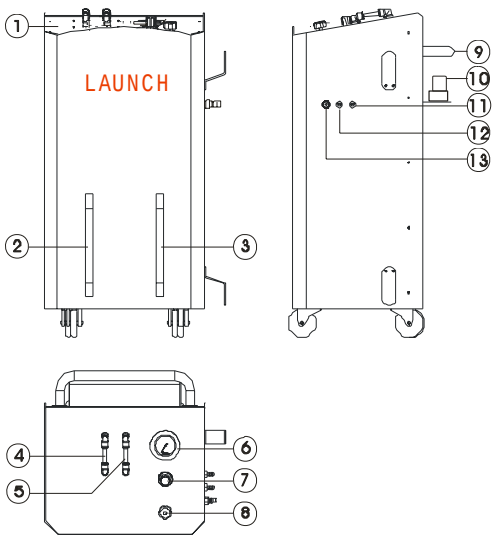

Fig.01

1-Control panel; 2-New fluid tank; 3-Used fluid tank; 4-Sight glass for new fluid; 5-Sight glass for used fluid; 6-Pressure gauge; 7-Air pressure adjusting valve; 8-Adjusting valve for fluid return; 9-Handle; 10-Filter assembly; 11-Fluid outlet; 11-Fluid return port; 12-Air inlet.

2.Control Panel

The control panel is shown as in Fig.02.

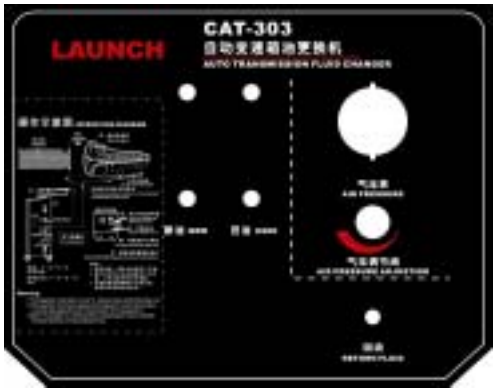

Fig.02

Name	Function
NEW	Observe the flow rate and compare the color of new and used fluid.
USED	
AIR PRESSURE	Display the working pressure of the unit.
AIR PRESSURE ADJUSTING	Adjust the working air pressure value.
RETURN FLUID	Control the flow quantity of returned fluid.

3. Spare Parts

No.	Name	Qty	Unit	Remarks
1	Vehicle adapters kit	1	set	see packing list
2	User's manual	1	Copy	
3	Installation and parts manual	1	Copy	
4	After-sales service manual	1	Copy	
5	Packing list	1	Piece	

Operation

1.Connection of Hose

1) Jack the vehicle to get the drive wheel off the ground.
2) Locate a fluid hose that is connected to the radiator and transmission at the most convenient location, and then disconnect the adaptor.
3) Identify the fluid flow direction: Draw the two disconnected ends into the used tank (to prevent the fluid from spraying the ground when starting the engine).Start the engine and let it run for a while to identify the flow direction of fluid: flowing away from the port is direction "A" while the other is direction "B".
4) According to the flow direction, connect the outlet end of transmission to the fluid return hose of CAT-303, and the other end to the fluid outlet hose.
5) Connect the compressed air to the air inlet of the unit (at this time, the air pressure adjusting valve is in closed state). See Fig.03.

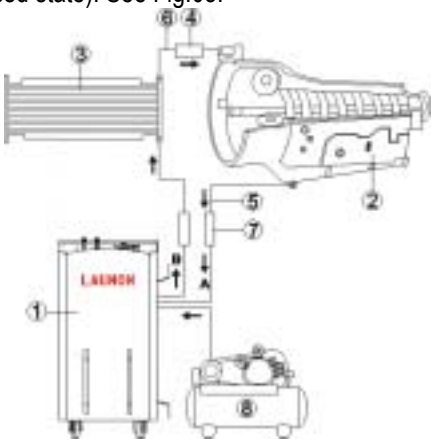

Fig.03

1-CAT-303 main unit; 2-Automatic transmission; 3-Radiator; 4-Adaptor; 5-Fluid return hose; 6-Fluid inlet hose; 7-Adaptor; 8-Air compressor A-Return fluid; 8-Outlet fluid.

2.Exchange of ATF

1) Make sure all hoses are well connected.
2) Fill a proper quantity of new ATF into the unit.
3) Properly open the fluid return valve and slowly open the air pressure adjusting valve clockwise to adjust the air pressure up to 10~15PSI, and then start the engine.
4) Make sure that the filling quantity of new fluid is equal to the recovered quantity of used fluid.
5) Shift each gear when exchanging. Each gear should stay about 1 minute, which depends on actual situation. When the auto running at D or O/D gear and the speed should reach more than 60 km/h, the ATF inside control pipeline can be exchanged.
6) Equal adjustment: observe the quantity of the decreased new fluid and the quantity of the increased used fluid; meanwhile adjust the air pressure valve and the fluid return valve to make sure that the level inside the used tank is equal to the new tank. If the quantity of the increased used fluid is more than that of the decreased new fluid, adjust the return valve clockwise to slow the flow speed; If the quantity of the increased used fluid is less than that of the decreased new fluid, adjust the air pressure valve counterclockwise to decrease the filling quantity of the new fluid.
7) When the color of the used fluid becomes equal to the new fluid, stop exchanging. Stop the engine and turn off the air pressure valve counterclockwise.
8) Disconnect the connections of the unit and resume the fluid hoses of the automatic transmission.
9) Start the engine and check if there is leakage in the pipeline.
10) Check the level of ATF. If the level is not enough, should supply the fluid. Please refer to the section "Adding ATF (Direct Fill)" for operation procedures.

Note:
To ensure the exchange quality, the quantity of new fluid inside the unit should be 2L~3L more than that of the fluid required by auto transmission.

3.Adding ATF (Direct Fill)

1) Choose the proper connector from the kit to connect the fluid outlet hose and insert it into the fluid filling port.
2) Fill the new fluid to the unit.
3) Slowly open the air pressure adjusting valve clockwise and the unit starts to fill new fluid.
4) Check the fluid level inside transmission and turn off the air pressure adjusting valve counterclockwise if the fluid is enough.

Unpacking, Packing and Transportation

1. Packing Carton

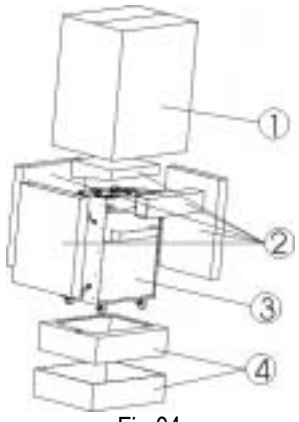

Fig.04

1-Upper cover of carton; 2-Paper card; 3-CAT-303 Main unit；4- Base seat.

2. Unpacking

1) Place the unit at the flat ground.
2) Snip adhesive tape with scissors and remove the upper cover of the carton.
3) Remove the paper cards around the unit.
4) Remove the spare part attached by the unit, and then carry the machine out. The unpacking is completed.

3. Packing

1) Place a piece of pearl cotton on the center of base seat and fix it well.
2) Place the CAT-303 main unit on the base seat and fix the spare part with adhesive tape, then wrap with the packing bag.
3) First, install the paper card onto the pothook, secondly, install the upper cover of the carton, and then place the other paper cards on the corresponding position.
4) Fix the carton with adhesive tape, and then attach the seal. The packing is completed.

4. Transportation

Transport the unit under the condition that there is no direct rain (snow), but the carton should be placed vertically.

Maintenance

1) Cover the lid of the fluid tank to avoid the dust and impurities entering into the tank and the fuel path block after every usage.
2) Clean the connectors and place them into the kit after every usage.
3) Place the unit at the cool, dry, ventilated and flat area.
4) Special notice: please turn off air pressure adjusting valve and turn on the fluid return valve when the unit is not in use.

Troubleshooting

1) Trouble 1: The unit does not work when connecting air source.
   Cause 1: The pneumatic adjusting valve is in the closed state.
   Solution: Slowly unscrew the air pressure adjusting valve clockwise (it is suggested to adjust up to 10~15 PSI).
   Cause 2: The pneumatic pump is damaged.
   Solution: Replace the pneumatic pump.
   Cause 3: The air pressure source has no power.
   Solution: Check if the air compressor functions normally.
2) Trouble 2: There is no fluid inside used tank when performing exchange.
   Cause: The needle valve is in closed state.
   Solution: Open the needle valve.

Warranty

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Order Information

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:
Quantity
Part number
Item description

Customer Service

If you have any questions on the operation of the unit, please contact us:
Tel: 86-755-82269474,
Fax:86-755-82264570,
E-mail: overseasales@cnlaunch.com.

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is proved to be in warranty, it will be repaired or replaced at no recharge. If the unit is proved be out of warranty, it will be repaired for a nominal service recharge. Send the unit pre-paid to:

Attn: Overseas Department

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